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EXAMINER				
DANG, KET D				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/558,386

## Applicant(s)

KADDANI ET AL.

## Examiner

KET DANG

## Art Unit

4118

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date \_\_\_\_\_
- 6) ☐ Other: \_\_\_\_\_
- 7) ☐ Notices of Informal Patent Application
- 8) ☐ Paper No(s)/Mail Date 11/29/2005

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of claims 1-5 and 13-14 in the reply filed on March 8, 2009 is acknowledged. Claims 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 6-9 have canceled. Claims 3 and 5 have amended. And claims 13 and 14 have added.
2. The traversal is on the ground(s) that, recites "the restriction requirement on the basis that unity of invention exists between the two groups of claims because the two groups of claims share special technical features. Along these lines, claims 10-12, which are directed to a computer program product, recite a computer program product that includes computer program instructions for carrying out a method recited in claim 1 and the method recited in claim 1 includes steps that the computer program instructions carry out". This is not found persuasive because a computer program product is to be construed as a computer program per se unless the application makes clear that the only reasonable interpretation of the word "product" is a product that includes code set forth on a tangible computer-readable medium. In claim 10, recites "**A computer program product comprising a computer readable medium;**", in this case, the claim could easily be amended to be statutory by inserting language stating that the computer program is **encoded on a computer-readable medium**. This may not be the same as the computer program instructions that carry out all of the steps recited in claim 1 of group I. Thus, there is no unity among the two groups.

The requirement is still deemed proper and is therefore made FINAL.

***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/SE2004/000834, filed on May 28, 2004.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 1 recites the limitation "the welding station" in line 10. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

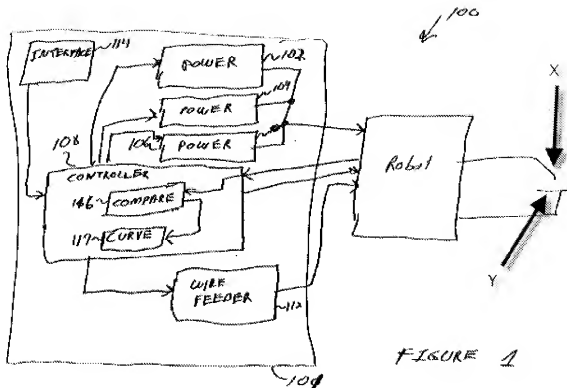
7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Rappl et al. (US Pub. No. 2003/0052108 A1).
9. Regarding claim 1, Rappl et al disclose a method of tuning an arc welding system 100 (Fig. 1) (Page 3, paragraph 32) comprising an electric circuit (Page 2,

paragraph 29) including a power source 101 (Fig.1) (Abstract), a control system 108 (Fig. 1) including computer means (Page 3, paragraph 35) and memory means (Page 2, paragraph 26), the method comprising: determining values of system input parameters of the electric circuit (Abstract) (Page 2, paragraph 30); calculating tuning parameter values from these system input parameters (Abstract) (Page 1, paragraph 9, lines 7-8) by using a simulation model of the arc welding system (Page 2, paragraph 29); and tuning the arc welding system by implementing the tuning parameter values into the control system (Page 1, paragraph 3), wherein the simulation model (Page 2, paragraph 29) is calibrated to represent the actual welding situation by measurement of model parameter values on the welding station on site (Page 3, paragraph 40).



### Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rappl et al. (US Pub. No. 2003/0052108 A1).

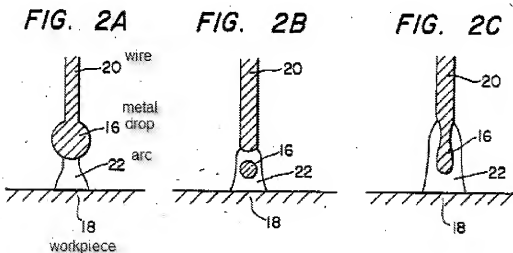
12. Regarding claim 2-4, Rappl et al. disclose the claimed invention, and further teach three calibration modes (Page 1, paragraph 17, lines 5-7) and the metal transport

between the electrode X (Fig. 1 above) and the workpiece Y (Fig. 1 above). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include three calibration modes and the metal transport between the electrode and the workpiece as claimed by application. Rappl suggests that his invention is capable (Page 2, paragraph 21) of carrying out similar calibration modes with different elements (Page 1, paragraphs 9, 10, 11, & 17), since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

13. Claims 5 & 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rappl et al. (US Pub. No. 2003/0052108 A1) in view of Ueguri et al. (US 4,594,498).

14. Regarding claims 5 & 13-14, Rappl et al. disclose the claimed invention including wherein the simulation model (Page 2, paragraph 29) is calibrated to represent the actual welding situation by measurement of model parameter values on the welding station on site (Page 3, paragraph 40), and the parameter into a control system of a robotic arc-welding station representative of the simulation model (See robot figure 1), **except** for a metal transport model is brought to comprise a first model part of a region close to the wire, a second model part of the arc column, and a third model part of the metal condensing in the region close to the workpiece; and wherein the electric circuit comprise inductance, resistance, and power source of the electric circuit. However, Ueguri et al. teach a metal transport model is brought to comprise a first model part of a region close to the wire (See Fig. 2A below), a second model part of the arc column

(See Fig. 2B below), and a third model part of the metal condensing in the region close to the workpiece (See Fig. 2C below); and wherein the electric circuit comprise inductance 262 (Fig. 11), resistance 264 (Fig. 11), and power source 260 (Fig. 11) of the electric circuit (Col. 9, lines 41 - Col. 10, lines 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the Rappl's reference, to include a metal transport steps and a electric circuit, as suggested and taught by Ueguri, for the purpose of achieving metal transferring welding operation in three different phrases (Col. 1, lines 11- 18).



### **Conclusion**

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burr (US 4,897,521) discloses weld arc simulator. And Stone et al. (US 6,274,839 B1) disclose method and apparatus for building up a workpiece by deposit welding.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to KET DANG whose telephone number is (571)270-7827. The examiner can normally be reached on Monday - Friday, 7:30 - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoang Tu can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KET D DANG/  
Examiner, Art Unit 3742  
/TU B HOANG/  
Supervisory Patent Examiner, Art Unit 3742